

ABSTRACT

[1028] It has been discovered that an inductor may be made to include a surface rotational portion instead of a coil to provide a low inductance inductor with sufficient quality factor. The surface rotational portion is a conducting structure which is substantially enclosed along the length of the structure and which has openings at each end of the structure and an opening along the length of the structure between the end openings. One example of such a structure is a cylinder having a lateral opening and openings at its ends or bases. Another example of such a structure is a duct-shape or rectangular structure. Any appropriately shaped surface may be used to rotate current, and varying thicknesses and lengths may be used as appropriate.